

Socialist Privatization: Response

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There is no theory and little historical precedent to guide the transformation of a languishing centrally planned economy into a market economy. Socialist privatization does not offer a seamless panacea for this daunting problem. As a conceptual framework it identifies the major problems at hand, outlines a set of goals and targets, and identifies a sequence of economically viable reforms. Neither reviewer offers an alternative blueprint for how this critical transformation is to be realized. Both do raise constructive questions pertaining to the political viability of the proposed program, and these require a response.

The fundamental issue raised by both reviewers is whether the proposed reforms are sufficiently attractive to gain widespread public support in the Soviet Union. Their concerns arise from the deep cynicism that pervades the Soviet political atmosphere. The reputation and credibility of the Gorbachev government is strained and tarnished and this surely is an impediment to the acceptability of any reform package. The issue of whether the proposed reforms can succeed will at best be clarified but never settled by American academics. It must finally be judged by Soviet citizens.

It is these considerations that lead Millar to question whether citizens will exchange their *de facto* nonpecuniary property rights to apartments, privilege and even "the capacity and willingness to queue . . . for a certificate that represents itself as a claim on total public assets and

promises a future stream of income of (as yet) unspecified size." His concerns reflect the pre-perestroika conventional wisdom which asserts that Soviet citizens inevitably prefer a known evil to an unknown good. This occupational pessimism may be justified by the failure of past efforts at reform. But it risks the all-too-casual dismissal of novel ideas which have already gained support among some of the top advisors of the present government.¹ The unprecedented changes in Eastern Europe, compel one to elaborate policies that endeavor to overcome Soviet inertia and to design a sequence of reforms that can establish and maintain confidence in the reform process during the transition period. As western economists, versed in the power of market mechanisms, it is natural and fitting to entertain comprehensible reform programs that provide attractive incentives for a broad class of citizens. As will be demonstrated below, the incentives provided by the socialist privatization program are very attractive and they are designed to directly benefit each and every citizen.

Millar rhetorically asks, "If all that socialism can do is to mimic the capitalist economy, why bother?" Having just witnessed Eastern Europe opt for a market economy without the egalitarian benefits of socialist privatization, perhaps greater optimism is warranted. Our best hope is to propose reforms that can capture the imagination of Soviet leaders, and reinforce their will to present the case to the Soviet people.

Professor Marrese has similar concerns, asking whether the reforms are practical. He, however, aptly goes to the heart of the relevant empirical question, namely, what is the value of the "subsidy each person would receive" under the socialist privatization scheme? While we have no behavioral estimates of the elasticity of

1. See M. N. Petrakov, "Can the Russians Really Reform?" in *Fortune*, May 7, 1990, and S. S. Shatalin, *Pravda*, April 26, 1990, as cited in fn. 41 of my original paper.

political response to pecuniary incentives, as economists we can agree that the larger the incentives, and the more broadly they are distributed, the higher the likelihood that Soviet citizens will be attracted to the proposed program of socialist privatization.

Marrese appropriately sets out to calculate the value of a "citizen share," the dividend income it is expected to yield and its approximate cost. In Table 1, column 1 summarizes Marrese's estimates. Columns 2 and 3 display alternative estimates that I consider to span a more plausible range. To highlight our differences, I employ the same simple valuation method proposed by Marrese, but use alternative assumptions and data sources as inputs to the calculation.²

How Large Are the Incentives?

The Value of Citizen Shares

To obtain a rough estimate of the per capita value of the proposed distribution we require an estimate of the value of the capital stock to be distributed. Marrese informs the reader that his "estimate of Soviet non-agricultural business capital is based on the assumption that this value is roughly the same share of GNP as was true for the US in 1972" (Marrese, fn. 3). Marrese does not explain or justify this key assumption which leads him to value the Soviet capital stock at 85 percent of GNP or 792 billion rubles.

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2. In all the calculations that follow, the capital stock valuation is cost-based. Ideally, one would wish to value the capital stock at the market prices that emerge after the reforms have succeeded. If the transformation process significantly reduces transaction costs and allocates the existing stock to more efficient productive uses, this should result in higher valuations.

Table 1. Alternative Estimates of Share Values, Costs and Dividend Yields

	Marrese (1)	Feige 1 (2)	Feige 2 (3)
GNP (bil. of rubles)	932	932	932
Capital stock value ^a	792	2,796	3,738
Population (mil.)	288	288	288
Per capita asset value	1,375	4,854	6,472
Family asset value	5,500	19,416	25,888
Family dividend income ^b	440	2,038	2,718
Increase in family income	7.3%	34.0%	45.3%
Ruble overhang(bil)	233	165	82.5
Share cost/family	3,236	2,292	1,146
Net gain from distribution	2,264	17,124	24,742
Percent gain	70.0%	747.0%	2,159.0%
Government revenues		98.6	117.7
Central	6.3	32.9	39.3
Regional, local		65.7	78.4

^aBillions of rubles. Column 1 is based on Marrese's use of comparable ratios for the U.S. in 1972. Column 2 assumes a capital output ratio of 3.0, and Column 3 assumes a capital output ratio of 4.0. The justification for these assumptions and the data sources on which they are based are found in footnote 3, below.

^bColumn 1 follows Marrese in assuming an 8 percent yield, whereas columns 2 and 3 assume a 10.5 percent yield. The justification for the use of the higher yield is explained in the text.

^cBillions of rubles. Expected government revenues are calculated by distributing 10 percent of the value of the capital stock to the central government and 20 percent to regional and local governments. Marrese's calculation for central government revenues is based on an assumed 8 percent dividend yield whereas the figures in columns 2 and 3 are based on 10.5 percent yields.

My alternative estimates rely on CIA calculations that employ official Soviet data sources. These sources reveal that the 1980 value of the USSR's gross fixed capital stock was 330 percent of GNP.³ More recent estimates suggest that the value of the capital stock is now in excess of 440 percent of GNP.⁴ Column 2 of Table 1 assumes that the value of non-agricultural business capital is 300 percent of GNP and column 3 employs a 400 percent estimate.

When 50 percent of the capital stock is equally distributed over the entire population, Marrese's calculations suggest that the average family of four would receive assets worth 5500 rubles $[(.5 \times 792,000 \times 4)/288]$. Employing the same procedure to Soviet source data

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3. See Robert Leggett, "Soviet Investment Policy in the 11th Five Year Plan," in *Soviet Economy in the 1980's: Problems and Prospects, Part I*, Joint Economic Committee, Congress of the United States, 97th Congress, 2nd Session, December 31, 1982, pp. 129-46.
 4. Estimates of the value of the total capital stock are published in official Soviet sources in 1973 prices. See *Narodnoe Khoziaistvo SSSR* (1980, p. 330; 1988, pp. 259, 551 and 623). These 1973 values are inflated by official Soviet inflation rates for the capital stock and are compared to CIA estimates of Soviet GNP. On the basis of these calculations, Leggett estimates the capital output ratio for 1980 at 3.3. The most recent estimate available for 1988 shows a ratio of 4.4. Subtracting agricultural capital and the housing stock reduces the estimate to approximately 3.7. Since the socialist privatization proposal includes the sale of the housing stock at advantageous prices, it should be added back to the capital stock to be included for distribution. Despite the possibility of wide margins of error, the simulations shown in columns 2 and 3 can reasonably be taken as lower and upper bounds respectively of the value of non-agricultural, non-housing business capital. These estimates may overestimate the value of the capital stock because of inadequate inflation adjustments and underestimate the value because the estimates take no account of the value of accumulated business inventories.

suggests that the average family would receive assets worth between 19,416 and 25,889 rubles.⁵

To put these figures into some perspective, assume that each year the average Soviet family is able to save 10 percent of its annual income (600 rubles). These yearly savings are regularly deposited in a savings account yielding 3 percent (the rate currently offered). Marrese's estimate of the value of the socialist privatization distribution implies that the average Soviet family would have had to save for 8.5 years in order to acquire a nest egg of comparable value. The alternative estimates based on Soviet data sources suggest that the family would require between 23 and 28 years to accumulate assets of comparable value to the proposed initial distribution. These calculations confirm that the proposed privatization program provides substantial incentives for Soviet citizens to support the reform program, even if they are unacquainted with compound interest calculations. The major problem is not that the incentives are too small, but rather that the government has failed to inform the citizens of the value of the assets that the state now hold in custody for them.

The Value of Dividend Income

To calculate the dividend income produced by these shares, Marrese assumes an 8 percent yield which implies a family dividend income of 440 rubles per year. Columns 2 and 3 employ a dividend yield of 10.5 percent rather than the 8 percent assumed by Marrese. The justification for

5. In my paper I suggested that, "In the Soviet Union, rough calculations suggest that the per capita share value of this distribution may be two or three times the average per capita annual income of the Soviet citizen." The foregoing calculation suggests that the value of the share distribution for the average family ranges between 3.2 and 4.3 times the average family income in the Soviet Union.

using a higher rate is that enterprise taxes have already been paid to central, regional and local governments in the form of a capitalized distribution of shares amounting to 30 percent of the nation's assets. The effective dividend yield is raised because corporate taxes are no longer a claim on the firm's revenues. These alternative assumptions produce additional family incomes between 2,038 ($.105 \times 19,416$) and 2,718 rubles per year. In short, the alternative estimates suggest that by making the average family a worker-capitalist family, their incomes would increase by 34.0 percent and 45.3 percent, respectively.⁶ Most economists would agree that the incentive effects of increases in income of this magnitude are likely to be taken seriously.

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6. Marrese cites the 42 percent decline in the average Polish standard of living between December 1989 and April 1990. Two observations are relevant. The socialist privatization scheme differs from the Polish reforms in several very important respects. First, the plan calls for the establishment of macroeconomic stabilization by means of ruble sterilization rather than inflation. Second, under socialist privatization, price reforms permit all prices, both goods *and* factor prices, to be market-determined, whereas the Polish reform permitted only product prices to rise while freezing factor prices. Finally, as shown in the above calculations, socialist privatization calls for the creation of a very generous safety net to protect each and every Soviet citizen. No transformation of this magnitude can be achieved without pain and dislocation. But the safety net features of the proposed plan assure that these dislocations will be smaller than those experienced in the Polish reform. Millar faults the proposal for "its single-minded reliance upon a single policy tool" which he identifies in the plural as my "financial policy instruments." It is true that n mutually exclusive targets require n independent instruments. However, when the targets are mutually consistent fewer instruments are required to hit the mark.

The Cost of Citizen Shares

In my paper I suggested that "the nominal cost of the shares should be set at the lowest possible fraction of the forecasted market value of the shares consistent with the achievement of monetary balance" (p. 31). The cost of the shares therefore depends critically on estimates of the excess supply of rubles *after* "the ruble is reconstituted as a fully functioning money" that is, after the establishment of private property rights that permit the purchase of real and financial assets with rubles. Marrese's estimate of the ruble overhang (233 billion rubles) is an average of the PlanEcon estimate and the official Soviet estimate of current "forced savings."⁷ The first alternative estimate (column 2) adopts the official Soviet estimate of the current overhang, whereas the second estimate assumes that 50 percent of the present excess supply will be eliminated once citizens have the right to purchase real and financial assets with their rubles.⁸ Under Marrese's assumptions, the cost of the shares for the average family would be 3,236 rubles $[(233,000/288) \times 4]$ yielding an expected net gain for the average family of 2,264 rubles $(5,500 - 3,236)$ or a 70 percent appreciation on their initial investment $[(2,264/3,236) \times 100]$. The corresponding rates

7. The official Soviet estimate of the ruble overhang is calculated as the sum of annual increments to the overhang. The annual increments are calculated by taking total money income paid in rubles, minus estimated expenditures in retail markets minus normal savings.

8. If citizens are permitted to employ their current "forced savings" to purchase fully transferable titles to their apartments, homes and to land parcels, and the rubles absorbed by such sales are sterilized, it is likely that the entire current overhang could be eliminated. An exact calculation of the overhang reduction requires estimates of the value of the housing stock and land that would be purchased under the assumption that current rent subsidies are phased out with the proposed price reforms.

of appreciation under the alternative assumptions are 747 percent and 2,159 percent, respectively.

To summarize, the foregoing calculations suggest that the safety net feature of the proposed socialist privatization redistribution is considerably more generous than safety nets currently employed in either socialist or capitalist economies. If it is still insufficient, nothing in the plan precludes further compensation via unemployment benefits and retraining programs, which can be financed by regional and local governments with a portion of the revenues that they also earn on their holdings of citizen shares.

Government Revenues

Professor Marrese acknowledges my concerns for fiscal issues but he surprisingly states that "budgetary soundness is not closely tied to Feige's plan of egalitarian socialist privatization." Yet the plan specifically calls for a distribution of 10 percent of the total citizen share to the central government and 20 percent for regional and local authorities precisely for the purpose of assuring a sound and efficient basis for government revenue collection. The expected fiscal revenues that result from these distributions can be calculated in the same manner as those for citizens (see Table 1, note c). Total government revenues from holdings of citizen shares are estimated to range between 98.6 and 117.7 billion rubles per annum. The largest share of revenues accrue to the regional and local governments, providing them with the resources to respond to local demands for particular public goods. As the Soviet Union moves toward a looser federation, the regional shares provide greater autonomy of decision making while preserving an economic connection to the national entity represented by the bundled shares of national assets.

The Problem of Efficiency

Both reviewers express concern that the 20 percent of unbundled shares allocated to managers, workers and foreign investors will not concentrate ownership sufficiently to provide appropriate incentives for efficiency. It appears that as management ownership of large industrial firms increases from zero to 5 percent of total ownership, the market valuation of the firm's assets also increases. However, as ownership increases from between 5 and 25 percent, market valuations of assets decline as a result of "entrenchment effects."⁹ The type of hands-on management and foreign involvement that requires majority or complete ownership is to be found among the small and medium sized firms which are likely to arise in the growing cooperative (private) sector. Nothing in my program precludes more concentrated ownership in newly established private firms. Indeed, I urge the passage of full private property laws to encourage entry into this potentially dynamic sector. Finally, as the reforms proceed with the deepening of equity markets, ownership will naturally become more concentrated.

Is the Program Practical?

Marrese suggests that a "key issue revolves around whether a fraud-free national banking system could be created to keep track of ownership titles, make loans and distribute dividends." The proposed plan suggests using the existing nationwide postal system as a rudimentary banking facility. The task of building this necessary infrastructure should be assigned to the bureaucrats whose services will no longer be needed to design and supervise the central

9. See Randall Morck, Andrei Shleifer, and Robert W. Vishny, "Management Ownership and Market Valuation: An Empirical Analysis," *Journal of Financial Economics* 20, no. 1-2 (January-March 1988): 293-315.

planning apparatus. If citizens were informed of the gains that would accrue to them as a result of title registration and lending facilities, there would be mass support to extend the local postal facilities and run them well.

Millar finds inspiration in Lange's prescription for the government to "put itself at the head of a great mass movement against monopoly and restrictionism, against . . . the concentration of economic control by the few, against social and economic instability and insecurity." This quote represents my own sentiments. What is needed in the Soviet Union is a bold leadership, armed with a comprehensive program of reforms designed to achieve these ends. While many of the implementation details of the socialist privatization program require deeper elaboration, its payoff for Soviet citizens is well established. Hopefully they will be given the opportunity to judge its merits.